

Project Name: Little Falls Mill Concrete Evaluation	Project No: 14134
Client: Resurgence Engineering & Preservation, Inc.	Design Strength:
Client Contact: Alfred H. Hodson III, P.E.	Typical Breaks:
Remarks:	

Set Number	No. of Cyl	Concrete Type	Date Received	Location
C1	Core	A	10-Sep	Basement East Wall @ Line 5.5
C2	Core	B	10-Sep	Basement Floor @ Line 16
C3	Core	C	10-Sep	Basement North Wall @ Line 21.5
C4	Core	D	10-Sep	Basement Floor @ Line 28.5 (Pieces)
C5	Core	C	10-Sep	Basement Center Column @ Line 30
C6	2Core	C	10-Sep	Basement South Wall @ Line 40 (2 Cores)
C7	2Core	E- Top / C-Beam	10-Sep	Basement Floor Between Lines 43 to 46 (Topping & Slab)
C8	2core	C	10-Sep	Outside North Wall Column on Line 40 (2 Pieces)
C9	Core	C	10-Sep	2nd Floor Wall @ Line 1
C10	Core	C	10-Sep	2nd Floor Beam @ line 4 (composite topping & Beam)
C11	Core	C	10-Sep	2nd Floor South Wall Column @ Line 13
C12	2core	E- Top / C-Beam	10-Sep	2nd Floor Beam @ Line 17.5 (Topping & Beam)
C13	2core	B Top / C Girder	10-Sep	2nd Floor Top of Girder Line 18 (Topping & Girder)
C14	Core	C	10-Sep	2nd Floor South Wall Column @ Line 30
C15	3Core	E- Top / C-Beam	10-Sep	2nd Floor Beam @ Line 40 +4' (Topping & Beam)
C16	Core	C	10-Sep	2nd Floor Column Line C-40 West Face
C17	Core	C	10-Sep	2nd Floor Column Line 15

Proposed tests

Chloride Strength

X X

X x

x x

x Too small

x

X 6B

XX

X

x

X

x

x X

X

too small

X

x

X

APPENDIX D

OPINION OF PROBABLE FOUNDATION REHABILITATION COSTS

VIL_RESP02217

KEDDY MILL, SOUTH WINDHAM, MAINE
CONCEPTUAL OPINION OF PROBABLE FOUNDATION REHABILITATION COSTS SUMMARY
February 11, 2009

	SCOPE ITEM	DESCRIPTION	TOTAL COST	COMMENT
CONSTRUCTION COSTS	4.3.1	Repair South Wall Grade Beam Over Water	\$50,000	
	4.3.2	Install New 40-ton Piles Along South Wall, Lines 30, 33, 36, 39	\$30,000	
	4.4.1	Repair South Foundation Wall Over Grade Beam	\$21,000	
	4.4.2	Replace North Wall Infill with New CMU	\$26,000	
	4.4.3	Brace Foundation Wall Tops, Lines 21-39, 6 Locations	\$18,000	
	4.4.4	New Retaining Wall at West End of the Building	\$250,000	
	4.4.5	New Endwall Brace or Foundation Shear Wall, Line 21	\$15,000	
	4.5.1	New Top Slab From Column Lines 21-40	\$52,000	
	4.5.2	Repair Elevated Concrete Slabs, Lines 40 to 47	\$208,000	
	4.5.3	Demo and Rebuild West Garage Ramp; Support on Piles	\$30,000	
		subtotal 1:	\$700,000	Subcontractor Costs
		10% Contingency	\$70,000	
		subtotal 2:	\$770,000	
		Add 15% General Contractor Overhead and Profit	\$115,500	G.C. Overhead and Profit
		TOTAL CONSTRUCTION COSTS	\$885,500	
			\$885,000	
		UNIT COSTS: ASSUMES 14 UNITS, 14 PKG SPACES	14	
		Total Net Area of Living Space	14,892	square feet of living space
		COST PER SQUARE FOOT OF LIVING SPACE	\$59	
		COST PER LIVING UNIT	\$63,214	

Notes

1. This information is part of Keddy Mill Foundation Assessment and Seismic Review, by Resurgence Engineering & Preservation, February 2009
2. Based upon 2009 Dollars. See preceding sheet for description of parameters involved in assembling Cost Opinion.
3. Refer to additional backup in Appendix at the back of this report.

VII-RESP02218

KEDDY MILL, SOUTH WINDHAM, MAINE
CONCEPTUAL OPINION OF PROBABLE FOUNDATION REHABILITATION COSTS -- February 11, 2009

VIL_RESP02219

REPORT SECTION 4.3 PIERS, PILECAPS, AND VISIBLE GRADE BEAMS											
ITEM description	QUANTITY	UNIT	UNIT COST			SUBTOTALS			TOTAL COST		COMMENT
			LABOR	MATERIAL	EQUIP	LABOR	MATERIAL	EQUIP			
4.3.1 Repair South Wall Grade Beam over Water											
Grade Beam Repairs, including swing staging over side of bldg	500	square feet	40.00	30.00	30.00	\$20,000	\$15,000	\$15,000	\$50,000		Equip provides allowance for access difficulty to water; i.e. swing staging
Assumes water has been lowered to allow underside access											See Photos #2.1 through #2.8
Does not consider any power plant stoppage costs											
Considers 167 feet x 3 feet = 501 square feet, round to 500 s.f.											
4.3.2 Install new 40-ton piles along South Wall, 4 Locn's											
Install Two New Piles each location, 4 locations, 60lf each loc'n	240	lineal feet	30.00	20.00	10.00	\$7,200	\$4,800	\$2,400	\$14,400		Total for all Four Locations
Concrete Demo	4	locations	1,500.00	200.00	300.00	\$6,000	\$800	\$1,200	\$8,000		Concrete Demo Subtotal, All Four Locations
Concrete Repairs, Tying Piles Together, Patching (OCCURS AT LINES 30, 33, 36, 39)	4	locations	1,200.00	700.00	0.00	\$4,800	\$2,800	\$0	\$7,600		Concrete Repairs Subtotal, All Four Locations
	0		0.00	0.00	0.00	\$0	\$0	\$0	\$0		
REPORT SECTION 4.3 SUBTOTAL						\$38,000	\$23,400	\$18,600	\$80,000		

REPORT SECTION 4.4 FOUNDATION WALLS											
ITEM description	QUANTITY	UNIT	UNIT COST			SUBTOTALS			TOTAL COST		COMMENT
			LABOR	MATERIAL	EQUIP	LABOR	MATERIAL	EQUIP			
4.4.1 Repair South Foundation Wall Over Grade Beam											
Wall Repairs, including swing staging over side of building	1,500	square feet	10.00	2.00	2.00	\$15,000	\$3,000	\$3,000	\$21,000		Equip provides allowance for access difficulty to water; i.e. swing staging
Assumes water has been lowered to allow underside access											
Does not consider any power plant stoppage costs											
Does not include interior cosmetic painting											
4.4.2 Replace North Wall Infill with New CMU											
CMU Demo and Replacement	1,000	square feet	14.00	10.00	2.00	\$14,000	\$10,000	\$2,000	\$26,000		See Photos #1.2 and #1.5. Six Bay spaces between concrete columns
72 feet x 14 feet x \$32 per square foot; round 1008 s.f. to 1000 s.f.	0	locations	0.00	0.00	0.00	\$0	\$0	\$0	\$0		
Also considers local concrete column patching repairs this area	0	locations	0.00	0.00	0.00	\$0	\$0	\$0	\$0		
Considers a glazed CMU finish-type block, no insulation or backer wall											
4.4.3 Brace Foundation Wall Tops, Lines 21-39, 6 locations											
Brace wall at Six Locations (at primary interior columns)	6	locations	1,400.00	1,400.00	200.00	\$8,400	\$8,400	\$1,200	\$18,000		See Photo #3.1 for Center Pier Structure
Considers steel braces diagonally from near tops of walls to Framework at Center of the Building	0	locations	0.00	0.00	0.00	\$0	\$0	\$0	\$0		
4.4.4 New Retaining Wall at West End of the Building											
20 feet high x 76 feet long	1	lump sum	120,000.00	100,000.00	30,000.00	\$120,000	\$100,000	\$30,000	\$250,000		See Photo #3.2
considers some tiebacks into existing driveway soils and some bracing off of adjacent boiler structure to remain	0	locations	0.00	0.00	0.00	\$0	\$0	\$0	\$0		
4.4.5 New Endwall Brace or Foundation Shear Wall, Line 21											
14 feet high x 38 feet wide; two sections, either side of center column.	1	lump sum	9,000.00	6,000.00	0.00	\$9,000	\$6,000	\$0	\$15,000		Designed resist lateral loads against long direction of building.
will be tied into large octagonal center pier at line 21	0	locations	0.00	0.00	0.00	\$0	\$0	\$0	\$0		
vehicular opening at south side half for cars to exit	0		0.00	0.00	0.00	\$0	\$0	\$0	\$0		
REPORT SECTION 4.4 SUBTOTAL						\$166,400	\$127,400	\$36,200	\$330,000		

REPORT SECTION 4.5 LOWER LEVEL FLOOR											
ITEM description	QUANTITY	UNIT	UNIT COST			SUBTOTALS			TOTAL COST		COMMENT
			LABOR	MATERIAL	EQUIP	LABOR	MATERIAL	EQUIP			
4.5.1 New Top Slab From Column Lines 21-40											
Slab Repairs Considers 6" slab tied into piers and walls w/ beams	130	yards	175.00	175.00	50.00	\$22,750	\$22,750	\$6,500	\$52,000		Considers Allowances for Dowelling, Thickening as Required, and For Vapor Barrier and Drainage System Below New Slab and Above Existing.
5900 square feet, 7" average slab depth = 130 yards concrete											
Does not include traffic bearing membrane											
4.5.2 Repair Elevated Concrete Slabs, Lines 40 to 47											
40 percent of 5,200 square feet elevated slab	2,080	square feet	55.00	25.00	20.00	\$114,400	\$52,000	\$41,600	\$208,000		See Photos #3.5 through #3.8
\$100 per square foot	0	locations	0.00	0.00	0.00	\$0	\$0	\$0	\$0		
Does not include traffic-bearing membrane											
4.5.3 Demo and Rebuild west garage ramp; support on piles											
Demo of Existing Ramp	1	lump sum	1,500.00	300.00	200.00	\$1,500	\$300	\$200	\$2,000		See Photo #1.6
8 piles, 25 lineal feet each, x \$80/lineal foot	8	each	700.00	800.00	0.00	\$5,600	\$8,400	\$0	\$12,000		
New Cast-in-place Concrete Ramp	1	lump sum	10,000.00	6,000.00	0.00	\$10,000	\$6,000	\$0	\$16,000		
	0		0.00	0.00	0.00	\$0	\$0	\$0	\$0		
REPORT SECTION 4.5 SUBTOTAL						\$154,250	\$87,450	\$48,300	\$290,000		

APPENDIX E

RESUME

VIL_RESP02220

RESURGENCE

ENGINEERING AND PRESERVATION, INC.
132 BRENTWOOD STREET PORTLAND, MAINE 04103
V/F (207) 773-4880 EMAIL: RESURGENCE@VERIZON.NET

ALFRED H. HODSON III, P.E.
MAINE P.E. #9246

EXPERIENCE:

OWNER/ENGINEER September 2002 – present. Resurgence Engineering and Preservation, Inc., Portland, ME

- ◆ Evaluation and inspection of historic institutional, commercial, and residential building structures.
- ◆ Structural design and analysis to stabilize and upgrade existing historic structures.
- ◆ Structural design of residential additions and light-commercial construction.

PROJECT E.I.T. / ENGINEER - September 1996 - April 2002. Criterium-Mooney Engineers, Portland, ME

- ◆ Structural, Fire, and Life-safety upgrades in historic masonry, iron, steel, and timber structures.
- ◆ Construction litigation and deposition witness.

MECE (STRUCTURES) and HISTORIC PRESERVATION CERTIFICATE – UNIVERSITY OF VIRGINIA

September 1994-August 1996. Charlottesville, VA (Completed January, 1998)

- ◆ Graduate Research Assistant, History Department, Virginia Transportation Research Council. MECE Report: "Renovation Options for the Goshen Bridge". Restoration feasibility study proposed and estimated costs of renovation methods for two-span metal truss bridge listed on the National Register of Historic Places.
- ◆ Preservation courses included Preservation Theory, Preservation Planning, Engineering Aspects of Preservation (Building Evaluation Techniques), Community History Studies (two semesters).

STRUCTURAL E.I.T. January 1990 - July 1994. S E A Consultants, Cambridge, MA

- ◆ Design and analysis of steel, reinforced and prestressed concrete, reinforced masonry, and wood structures.

STRUCTURAL E.I.T. June 1988-January 1990. Engineers Design Group, Cambridge, MA

- ◆ Design using steel, concrete, masonry, and timber construction; shop drawing review, site inspections.

PARTIAL PROJECT LISTING:

- ◆ Roof Repairs, Fort Knox State Historic Site, Prospect, ME (January 1997-December 2000): Provided construction documents and specifications for ongoing roof repairs, masonry restoration, life safety, accessibility and site improvements at Fort Knox State Historic Site.
- ◆ Facade Assessment, Fidelity Investments, Headquarters, Boston, MA (1991): Performed field investigation and assisted with evaluation report describing deficiencies in the facades of four historic multistory buildings in the Boston Financial District. Assisted with repair recommendations for parapets following severe storm damage in October 1991.
- ◆ Masonry Rehabilitation and Life Safety Improvements, Fort William Henry, South Bristol, ME (April 1998-August 1998): Performed preservation design and construction monitoring for masonry rehabilitation and life safety improvements at Fort William Henry State Historic Site.
- ◆ City Hall Clock Tower and Parapet Restoration, Portland, ME (2003-2007): Engineer of record for structural restoration of historic clock tower and parapets on 1912 Carrere & Hastings / John Calvin Stevens City Hall. Work included seismic strengthening of parapets and extensive structural upgrades to corroding steel and spalling granite in tower. Designed replacement belfry slab to replace significantly deteriorated slab.

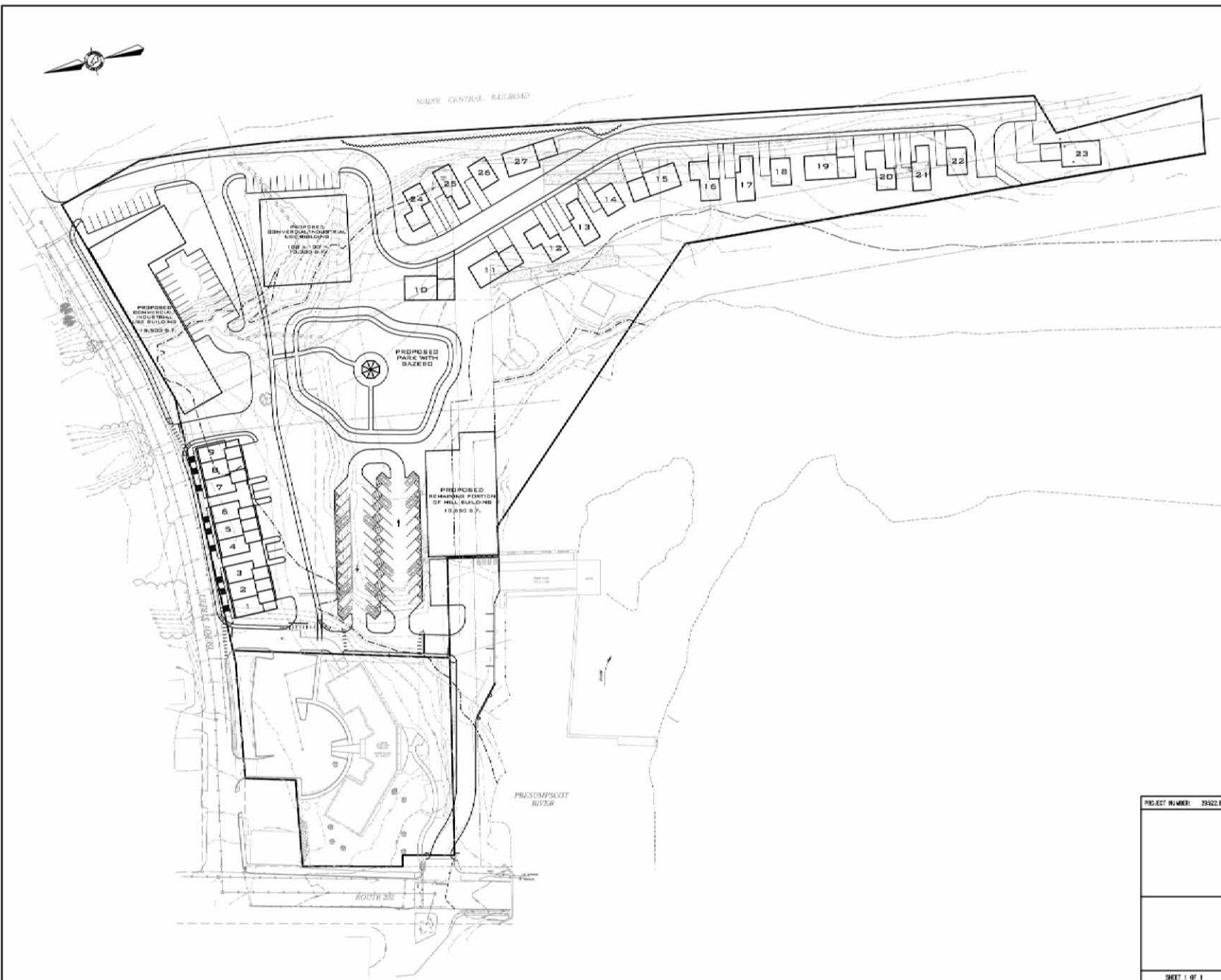
PRIOR EDUCATION:

Duke University. BSCE, May 1988. Civil Engineering Emphasis in Structures
BSCES Lecture Series, "Structural Rehabilitation/Restoration" (1993)
"Engineering for Historic Structures", APTI Conference, 2003.
"Wind Loads on Buildings and Structures", Seminar, 2004.
"Transitioning from 1999 BOCA to 2003 IBC", Seminar, 2005.

PROFESSIONAL AFFILIATIONS:

Greater Portland Landmarks, Structural Engineers Association of Maine, (Secretary, 2007-2009)

VII, RESP02221



Indikator	Dg	Debi	Storage

	Drawing Name: SKETCH PLAN (MIXED RESIDENTIAL/COMMERCIAL/INDUSTRIAL)
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HRC-VILLAGE AT LITTLE FALLS, LLC
2 MARKET STREET, PORTLAND, MAINE 04101

NCS
INCORPORATED
150 US ROUTE 1, SCARBOROUGH, MAINE 04074

SHEET 1 OF 1

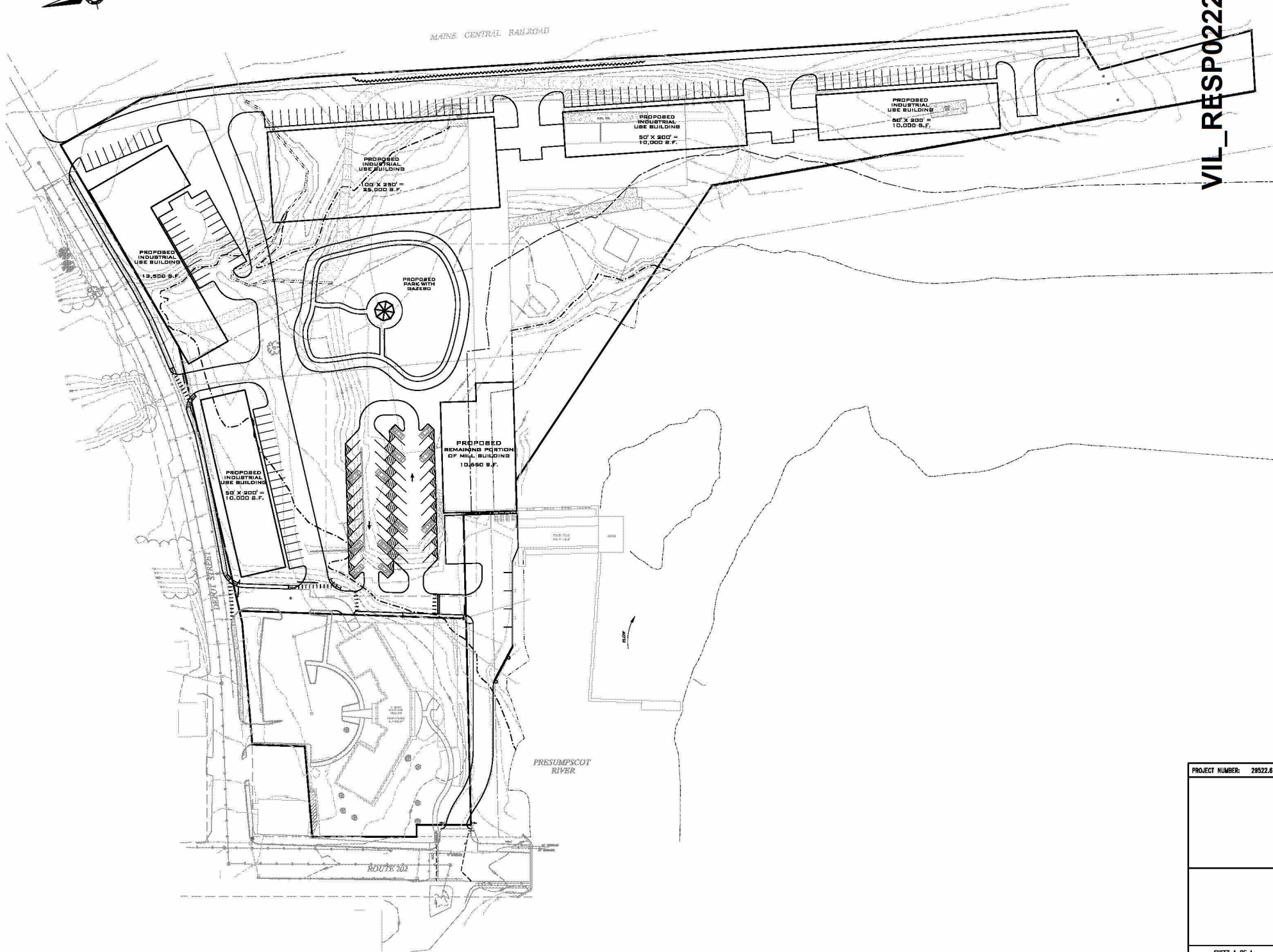
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MAINE CENTRAL RAILROAD

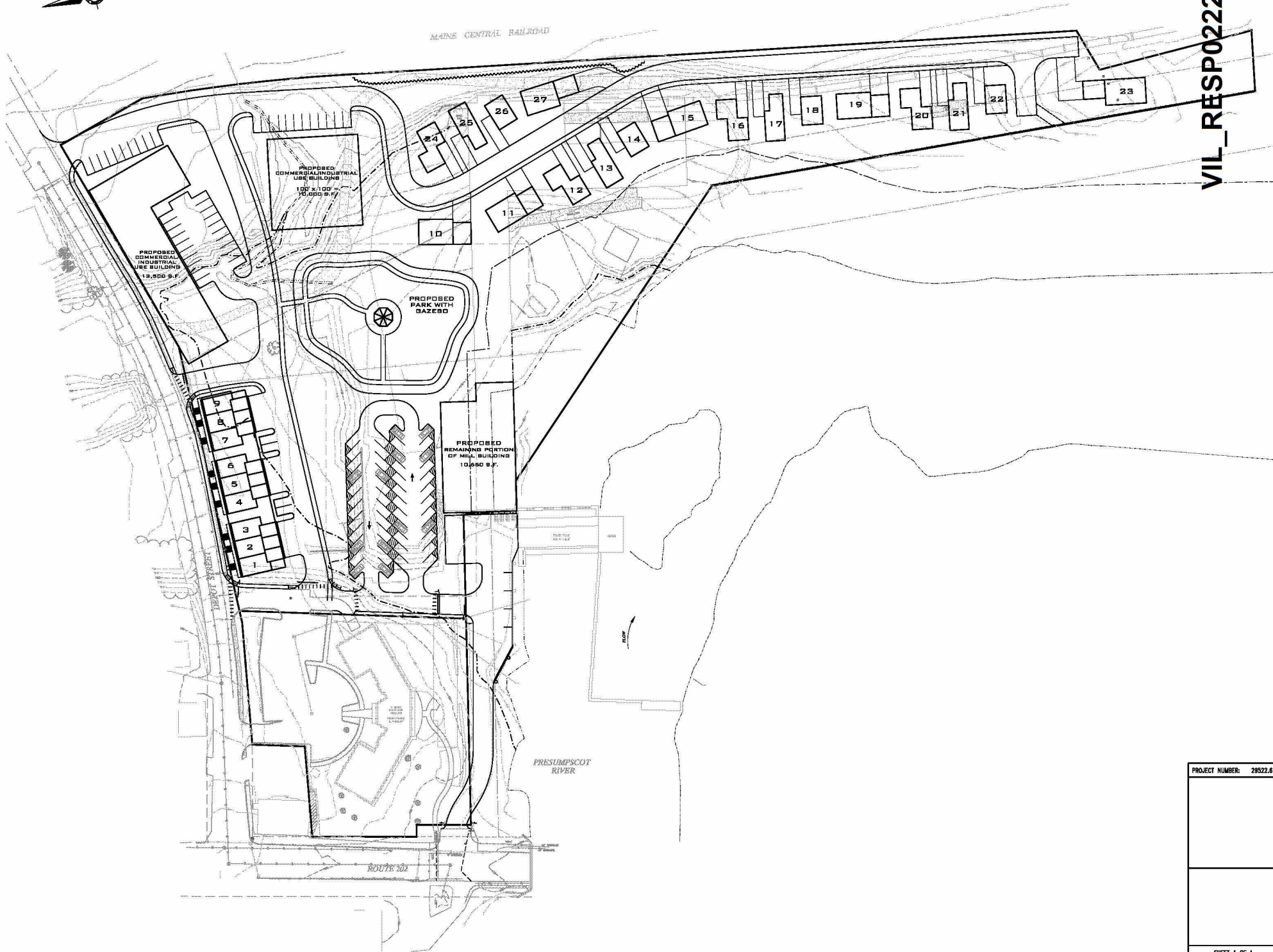
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PROJECT NUMBER: 29522.8



MAINE CENTRAL RAILROAD



VIL_RESP02226

PROJECT NUMBER: 29522.8

SHEET 1 OF 1

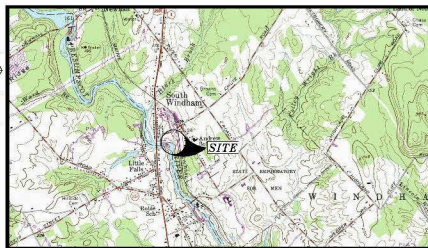


MAINE CENTRAL RAILROAD



VIL_RESP02227

PROJECT NUMBER: 29522.8



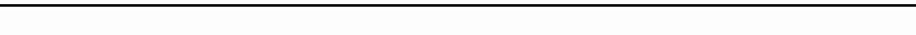
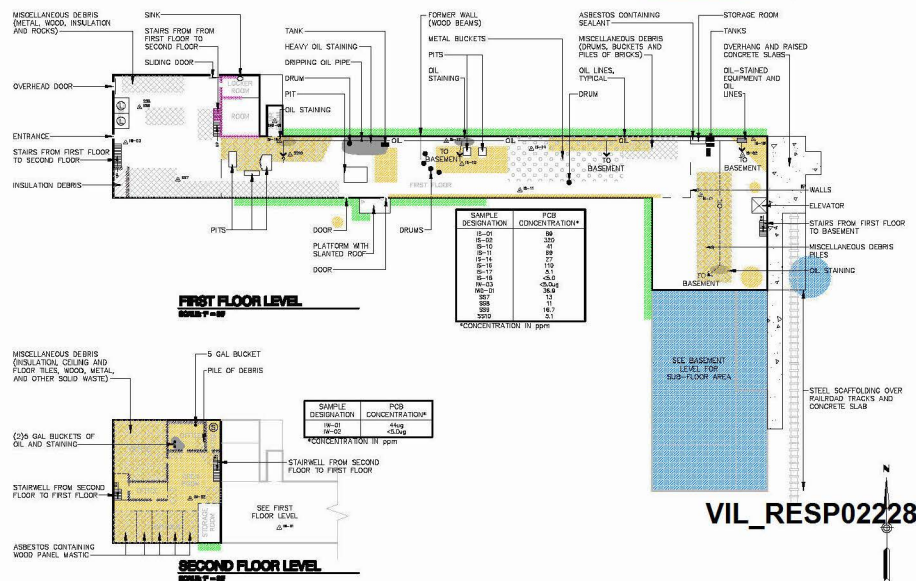
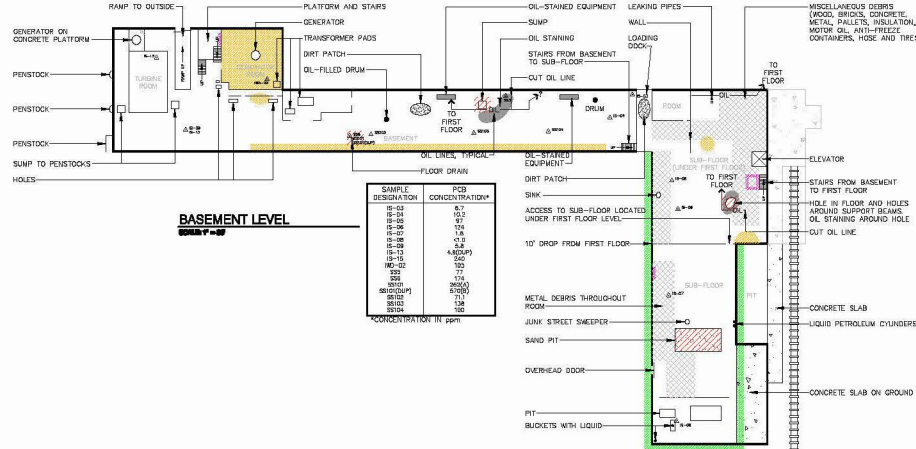
LOCATION MAP
NOT TO SCALE

KEY

- AREAS WITH CONCENTRATED ASBESTOS DEBRIS
- INTERIOR ASBESTOS CEMENT BOARD PANELS
- EXTERIOR ASBESTOS CEMENT BOARD PANELS
- ASBESTOS CEMENT CORRUGATED ROOFING
- ASBESTOS-CONTAINING JOINT COMPOUND/TEXTURE MATERIAL
- PILES OF MISCELLANEOUS SOLID WASTE
- EXPOSED PCB CONTAMINATED SUB-SLAB SOIL
- SINK UNDERCUT
- LIGHT FIXTURE BACKING

GENERAL NOTES

- ALL DIRT/SLUDGE COVERING FLOORS TO BE SCRAPPED OFF, TRANSPORTED OFF-SITE AND PROPERLY DISPOSED AS PCB-CONTAMINATED WASTE. DIRT/SLUDGE IS DISTRIBUTED THROUGHOUT MILL BUILDING.
- ALL DEBRIS, WOOD, PLASTIC AND METAL DEBRIS TO BE DISPOSED AS SOLID WASTE OR RECYCLED AS APPROPRIATE.
- OIL-STAINED OR ASBESTOS-CONTAINING MATERIALS TO BE SEGREGATED FROM SOLID WASTE AND PROPERLY DISPOSED.



VIL_RESP02228

FORMER KEDDY MILL

7 DEPT STREET
WINDY HAVEN

Project No:

HADSON REALTY CAPITAL, LLC
2 MARKET STREET, 8TH FLOOR
PORTLAND, MINE.

STAMP: OFFICE OF THE ATTORNEY GENERAL, STATE OF MINE, DEPARTMENT OF ENVIRONMENTAL PROTECTION

RANSOM Environmental Consultants, Inc.
480 Commercial Street, Suite 400
Portland, ME 04101
Tel: 603 775-5500
Fax: 603 775-5506
www.ransomenv.com

KEDDY MILL SITE PLAN

A - ISSUED FOR		Date
No.	Revision/Issue	Date
Drawn by:	SJD	Checked by:
Drawn by:	JAR	Approved by:
Project:	075063	Date:
Rev:	SEPT 06, 2007	

C-100



PHOTO
#2.1
923 001.jpg

Keddy Mill, South Wall: Pile Caps, Grade Beams, and Foundation Wall along South Wall, from Grid line 36 to grid line 47. Water depth limited access only to line 40.



PHOTO
#2.2
923 032.jpg

Detail: South Wall Pile Cap at Line 40: Note horizontal grade beam crack. Pilecap is surrounded by a rotten wooden cofferdam visible in the water to the left of the pilecap. 12" clearance, water to bottom of grade beam.

VIL_RESP02229



PHOTO
#2.3
923 042.jpg

South Wall Pile Cap, Line 40: Cofferdam at left, possible original formwork 2'-3" below water surface at right (arrow) may indicate bottom of pile cap.



PHOTO
#2.4
923 046.jpg

South Wall, looking North: View of elevated slab underside. Pile Cap 40 at left. Note flat slab to Pile Cap 40, then slab-beam system from Column line 40 west to Column line 47.

VIL_RESP02230



PHOTO
#2.5
923 026.jpg

South Wall Grade Beam at Pile Cap 39: Note cracking at left of photo, and crack beyond wading stick at right.



PHOTO
#2.6
923 048.jpg

South Wall Underside of Grade Beam, Looking from Line 36 to 39: Spalled concrete reveals structural steel plates, possibly the underside of wide-flange beams encased in concrete. Repair necessary. Cathodic protection possible.

VIL_RESP02231



PHOTO
#2.7
923 045.jpg

South Wall: Slab Underside at Line 39: Note flat slab supported by grade beam and pile cap along interior line of framing.



PHOTO
#2.8
923 010.jpg

South Wall Pilecap at Line 36: Note Cracking and Spalling of Concrete. Piece of bent metal at left partially obstructs view of grade beam. Repair required.

VIL_RESP02232



PHOTO
#3.1
oct 002.jpg

Keddy Mill, Basement: Proposed Parking Area. Note South Foundation Wall at Right. Columns on top of foundation wall can be braced across to center beam above triangular pier.

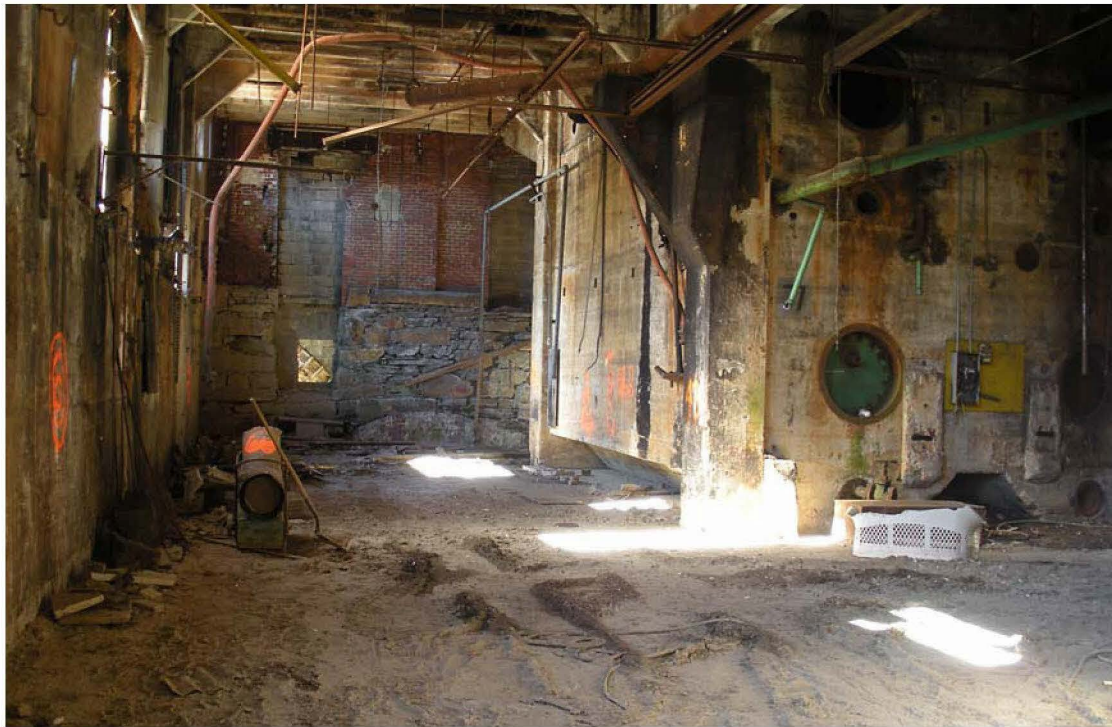


PHOTO
#3.2
923 032.jpg

Detail: Looking Toward West Retaining Wall: Rubble and brick are in poor condition, and should be stabilized. This wall should be supplemented and/or demolished and rebuilt. Also note thick silt deposits on elevated concrete slab.

VIL_RESP02233